

REMARKS/ARGUMENTS

This is a preliminary amendment in a RCE Application. The Office Action mailed June 17, 2003 has been carefully reviewed. Reconsideration of this application, as amended and in view of the following remarks, is respectfully requested. The claims presented for examination are: claims 10-28.

35 USC 103 Rejection - Van Gerwen et al Reference

In numbered paragraph 4 of the Office Action mailed June 17, 2003, claims 10, 12-18, and 21-28 were rejected under 35 U.S.C. 103(a) as allegedly unpatentable over the Van Gerwen et al (WO 97/21094) Reference.

Applicants have amended claims 10, 12-18, and 21-28 and respectfully submit that amended claims 10, 12-18, and 21-28 are patentable over the Van Gerwen et al Reference. The Van Gerwen et al Reference fails to disclose the following elements of amended claims 10, 12-18, and 21-28:

“a fluidic channel having at least one pair of spaced electrodes having surfaces and with a space between said electrodes, said electrodes localized along a length of said fluidic channel, with the electrodes of said at least one pair being located on the same side of said fluidic channel and with said electrodes having surfaces”

“antibodies immobilized on said surfaces of said spaced electrodes and immobilized in said space between said electrodes wherein said pathogens carried by said fluid attach to said immobilized antibodies”

“an impedance sensor for measuring impedance between said spaced electrodes for determining trapping of said pathogens”

The cited Van Gerwen et al Reference does not show the elements of the claimed invention and does not show the claimed combination of elements, there

is no suggestion in the reference to form a proper combination, nor does the cited reference provide a teaching of the claimed combination.

35 USC 103 Rejection - Clark et al in View of Kipling et al

In numbered paragraph 5 of the Office Action mailed June 17, 2003, claims 10, 12-13, 16, and 20-26 were rejected under 35 U.S.C. 103(a) as allegedly unpatentable over the Clark et al (US Pat. 5,194,133) Reference in view of the Kipling et al (US Pat. 5,374,521) Reference.

Applicants have amended claims 10, 12-13, 16, and 20-26 and respectfully submit that amended claims 10, 12-13, 16, and 20-26 are patentable over the Clark et al Reference and the Kipling et al (US Pat. 5,374,521) Reference and any legitimate combination of the references.

The Clark et al Reference fails to disclose the following elements of amended claims 10, 12-13, 16, and 20-26:

“a fluidic channel having at least one pair of spaced electrodes having surfaces and with a space between said electrodes, said electrodes localized along a length of said fluidic channel, with the electrodes of said at least one pair being located on the same side of said fluidic channel and with said electrodes having surfaces”

“antibodies immobilized on said surfaces of said spaced electrodes and immobilized in said space between said electrodes wherein said pathogens carried by said fluid attach to said immobilized antibodies”

“an impedance sensor for measuring impedance between said spaced electrodes for determining trapping of said pathogens”

The Kipling et al Reference also fails to show the elements of amended claims 10, 12-13, 16, and 20-26 identified above.

The cited Clark et al and Kipling et al references do not show the elements of the claimed invention and do not show the claimed combination of elements. There is no suggestion in the references to form a proper combination, nor do the cited references provide a teaching of the claimed combination.

35 USC 103 Rejection - Clark et al in View of Kipling et al and Taylor et al

In numbered paragraph 6 of the Office Action mailed June 17, 2003, claims 11, 14, 17-19, and 27-28 were rejected under 35 U.S.C. 103(a) as allegedly unpatentable over the Clark et al (US Pat. 5,194,133) reference in view of the Kipling et al (US Pat. 5,374,521) Reference, and further in view of the Taylor et al (US Pat. 5,001,048) Reference.

Applicants have amended independent claims 10, 16, and 24 and therefore have amended claims 11, 14, 17-19, and 27-28. Applicants respectfully submit that claims 11, 14, 17-19, and 27-28 are patentable over the Clark et al Reference, the Kipling et al Reference, and the Taylor et al Reference and any legitimate combination of the references.

The Clark et al Reference fails to disclose the following elements of claims 11, 14, 17-19, and 27-28:

“a fluidic channel having at least one pair of spaced electrodes having surfaces and with a space between said electrodes, said electrodes localized along a length of said fluidic channel, with the electrodes of said at least one pair being located on the same side of said fluidic channel and with said electrodes having surfaces”

“antibodies immobilized on said surfaces of said spaced electrodes and immobilized in said space between said electrodes wherein said pathogens carried by said fluid attach to said immobilized antibodies”

"an impedance sensor for measuring impedance between said spaced electrodes for determining trapping of said pathogens"

The Kipling et al and Taylor references also fail to show the elements of claims 11, 14, 17-19, and 27-28 identified above.

The cited Clark et al, Kipling et al, and Taylor et al references do not show the elements of the claimed invention and do not show the claimed combination of elements. There is no suggestion in the references to form a proper combination, nor do the cited references provide a teaching of the claimed combination.

35 USC 103 Rejection - Clark et al in View of Kipling et al and Stetter et al

In numbered paragraph 7 of the Office Action mailed June 17, 2003, claim 15 was rejected under 35 U.S.C. 103(a) as allegedly unpatentable over the Clark et al (US Pat. 5,194,133) Reference in view of the Kipling et al (US Pat. 5,374,521) Reference, and further in view of the Stetter et al (US Pat. 5,567,301) Reference.

Applicants have amended claim 15 by amending its parent claim 10 and respectfully submit that claim 15 is patentable over the Clark et al Reference, the Kipling et al Reference, and the Stetter et al Reference and any legitimate combination of the references.

The Clark et al Reference fails to disclose the following elements of amended claim 10 and therefore claim 15:

"a fluidic channel having at least one pair of spaced electrodes having surfaces and with a space between said electrodes, said electrodes localized along a length of said fluidic channel, with the electrodes of said at least one pair being located on the same side of said fluidic channel and with said electrodes having surfaces"

"antibodies immobilized on said surfaces of said spaced electrodes and immobilized in said space between said

electrodes wherein said pathogens carried by said fluid attach to said immobilized antibodies"

"an impedance sensor for measuring impedance between said spaced electrodes for determining trapping of said pathogens"

The Kipling et al reference also fails to show the elements of amended claim 10 and therefore claim 15 identified above.

The cited Clark et al, Kipling et al, and Stetter et al references do not show the elements of the claimed invention and do not show the claimed combination of elements. There is no suggestion in the references to form a proper combination, nor do the cited references provide a teaching of the claimed combination.

35 USC 103 Rejection – Van Gerwen et al in View of Taylor et al

In numbered paragraph 8 of the Office Action mailed June 17, 2003, claims 11 and 19 were rejected under 35 U.S.C. 103(a) as allegedly unpatentable over the Van Gerwen et al (WO 97/21094) Reference in view of the Taylor et al (US Pat. 5,374,521) Reference.

Applicants have amended claim 10 and therefore dependent claims 11 and 19. Applicants respectfully submit that amended claim 10 and dependent claims 11 and 19 are patentable over the Van Gerwen et al Reference and the Taylor et al Reference and any legitimate combination of the references.

The Van Gerwen et al Reference fails to disclose the following elements of claims 11 and 19:

"a fluidic channel having at least one pair of spaced electrodes having surfaces and with a space between said electrodes, said electrodes localized along a length of said fluidic channel, with the electrodes of said at least one pair being located on the same side of said fluidic channel and with said electrodes having surfaces"

"antibodies immobilized on said surfaces of said spaced electrodes and immobilized in said space between said electrodes wherein said pathogens carried by said fluid attach to said immobilized antibodies"

"an impedance sensor for measuring impedance between said spaced electrodes for determining trapping of said pathogens"

The Taylor et al Reference also fails to show the elements of claims 11 and 19 identified above.

The cited Van Gerwen et al and Taylor et al references do not show the elements of the claimed invention and do not show the claimed combination of elements. There is no suggestion in the references to form a proper combination, nor do the cited references provide a teaching of the claimed combination.

SUMMARY

The undersigned respectfully submits that, in view of the foregoing amendments and the foregoing remarks, the rejections of the claims raised in the Office Action dated June 17, 2003 have been fully addressed and overcome, and the present application is believed to be in condition for allowance. It is respectfully requested that this application be reconsidered, that the claims be allowed, and that this case be passed to issue. If it is believed that a telephone conversation would expedite the prosecution of the present application, or clarify matters with regard to its allowance, the Examiner is invited to call the undersigned attorney at (925) 424-6897.

Respectfully submitted,



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Livermore, California
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